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(71) Applicant: **Applied Materials, Inc.**
Santa Clara, California 95054 (US)

(72) Inventors:

- **Cordova, Sherry**
Sunnyvale, California 94086-8504 (US)
- **Wilmer, Michael E.**
Portola Valley, California 94028 (US)
- **Nishimura, Yukari**
Sunnyvale, California 94086 (US)
- **Krounova, Natalia**
Sunnyvale, California 94087 (US)

- **Nolet, Clarice M.**
Los Altos, California 94022 (US)
- **Doyle, Terry**
Portola Valley, California 94028 (US)
- **Lyon, Richard C.**
Pleasanton, California 94588 (US)
- **Lobovski, Evgeni**
San Jose, California 95131 (US)
- **Louneva, Inna**
Palo Alto, California 94303 (US)
- **Toh, Woon Young**
San Jose, California 95117 (US)
- **Reiss, Terry**
San Jose, California 95123 (US)

(74) Representative: **Käck, Jürgen, Dipl.-Ing.**
Kahler Käck Mollekopf
Patentanwälte
Vorderer Anger 239
86899 Landsberg (DE)

(54) **Wafer fabrication data acquisition and management systems**

(57) The present invention provides a semiconductor processing device (800) including a tool (802) having one or more sensors, a primary data communication port (804) and a secondary data communication port (806). A sensor data acquisition subsystem (808) acquires sensor data from the tool via the secondary port (806). The data acquisition subsystem (808) acquires MES operation messages via the primary port (804). Sensor data are communicated to a sensor processing unit (828) of a sensor data processing subsystem (810). The sensor processing unit (828) processes and analyzes the sensor data. Additionally, the processing unit (828) can be adapted for making product or processing related decisions, for example activating an alarm if the process is not operating within control limits. In another embodiment, the present invention provides a method and apparatus for processing data from a wafer fab facility (1000) including a plurality of tools (1004-1010) each having a primary data communication port (1012-1018) and a secondary data communication port (1042-1048).

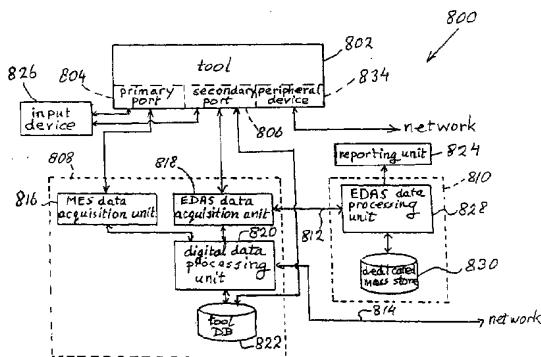


Fig. 8



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EUROPEAN SEARCH REPORT

Application Number

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | | | |
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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) | | |
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| The present search report has been drawn up for all claims | | | | | |
| Place of search | Date of completion of the search | Examiner | | | |
| The Hague | 11 October 2004 | Salvador, D | | | |
| CATEGORY OF CITED DOCUMENTS | | | | | |
| X : particularly relevant if taken alone | T : theory or principle underlying the invention | | | | |
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